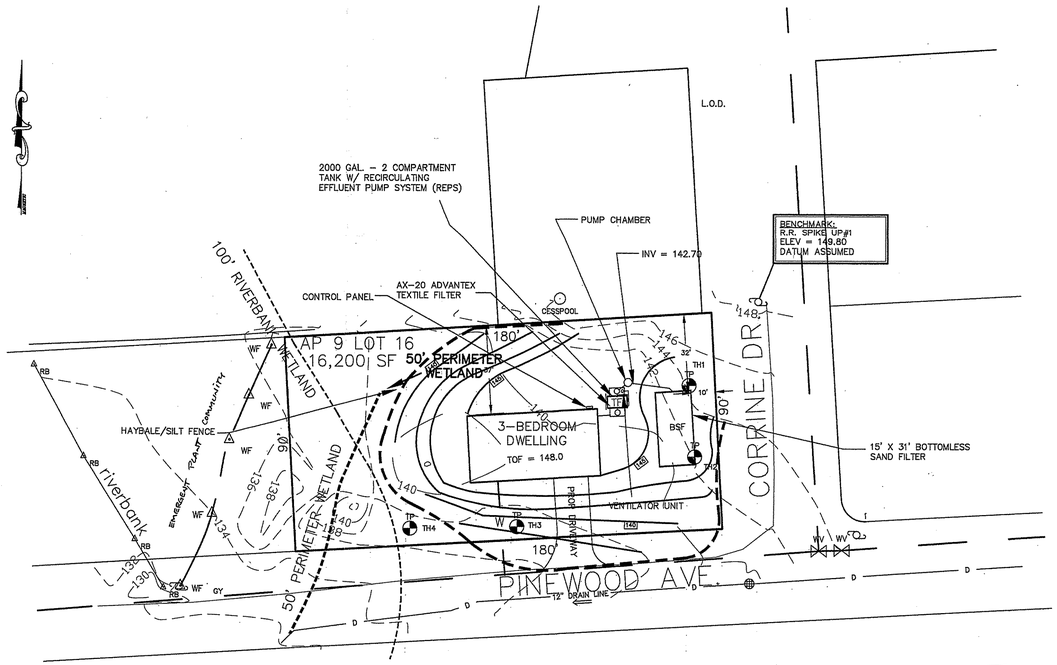


GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

AdvanTex Treatment System with High Head Pump Chamber

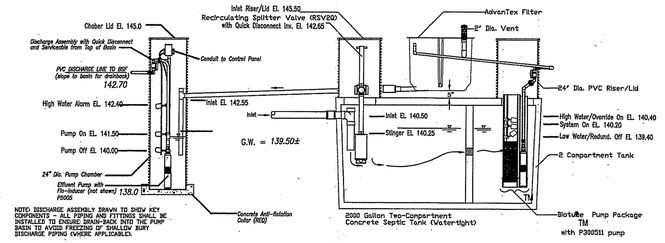
AX20 Series - Mode 3b - No Scale

DISCHARGE PUMP FLOAT SETTING CALCULATIONS

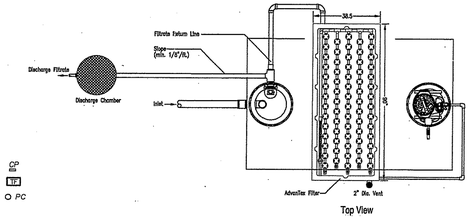
TOTAL DAILY FLOW =600 GALLON/DAY
DOSING RATE (2" ORIFICES@.25 GAL/DOSE= 36.0 GALLONS
TOTAL CYCLES PER DAY=600 GALLONS/36.0 GALLON/CYCLE = 16.7 CYCLES
DOSE SETTINGS 36.00 GALLON DOSE/2350 GALLON/LIQ. FT. = 1.50 FT.
PUMP CHAMBER ELEVATIONS (96" CHAMBER)-
RIM = 145.0 (TOP OF CHAMBER)
INLET = 142.55
HWA = 142.40 (2" BELOW INLET)
PUMP ON = 141.50
PUMP OFF = 140.00 (2" MINIMUM LIQUID LEVEL FOR P50 PUMP)
BOTTOM CHAMBER = 138.00

DETAILS BY:

Orenco Systems® Incorporated
Wastewater Technologies
Incorporated
70 Vermont Avenue, Unit A
Warwick, Rhode Island
02888
TELEPHONE
(401) 737-1810
FACSIMILE
(401) 737-4521



NOTE: DISCHARGE ASSEMBLY DRAIN TO SHOW KEY SUPPLIED WITH PUMP. ASSEMBLY TYPE SHALL BE INSTALLED TO ENSURE DRAIN-BACK TO PUMP BASIN TO AVOID FREEZING IF SHALLOW BURY DISCHARGE PIPING WHERE APPLICABLE.



Top View

NOTE: ADVANTEX AX20 TREATMENT SYSTEM IS DESIGNED WITH THE USE OF A VERRICOMM TELEMETRY CONTROL PANEL MODEL VCOM-AXB1HT. HOUSE ELECTRICIAN TO PROVIDE 1-10 AMP CIRCUIT, 1-20 AMP CIRCUIT AND PHONE JACK FOR PANEL CONTROLS.

LEGEND:

EXISTING CONTOUR	650	CONTROL PANEL	CP
PROPOSED CONTOUR	650	TEXTILE FILTER	TF
EXISTING EDGE OF PAVEMENT		PUMP CHAMBER	PC
EXISTING SOIL EVALUATION TEST HOLE			
PROPOSED SILT FENCE			

NOTES:

1) ALL OTHER DESIGN, CONSTRUCTION AND MAINTENANCE REQUIREMENTS WHETHER NOTED HEREON, OR NOT, SHALL BE IN CONFORMANCE WITH RULES & REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF INDIVIDUAL SEWAGE DISPOSAL SYSTEMS, DECEMBER 1, 1980 BY THE RIDEM AUTHORITY SECTIONS 42-17.1-2(19)(m),(r) & (s) OF THE GENERAL LAWS OF RI, 1956 (1977 RE-ENACTMENT) AS AMENDED.
2) SEE ISDS SPECIFICATIONS ATTACHED.
3) CLEAR ALL TREES AND STUMPS WITHIN 10' OF SYSTEM.
4) THERE SHALL BE NO SUBSURFACE, FOUNDATION DRAINS OR STORM DRAINS WITHIN 25' OF THE SYSTEM.
5) COMPLY WITH ALL ADDITIONAL TERMS OF APPROVAL AS MAY BE REQUIRED BY RIDEM.
6) SDR-35 PVC PIPE FROM BUILDING TO SEPTIC TANK.
7) SMALL DIAMETER PRESSURIZED PVC PIPE SHALL BE SCH 40, WITH SOLVENT WELDED CONNECTIONS UNLESS SPECIFIED OTHERWISE.
8) THERE ARE NO EXISTING OR PROPOSED PRIVATE DRINKING WATER WELLS WITHIN 200' OF THE PROPOSED ISDS OR ALTERNATE AREA EXCEPT AS SHOWN.
9) THERE ARE NO EXISTING OR PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 500' OF THE PROPOSED ISDS OR ALTERNATE AREA EXCEPT AS SHOWN.
10) THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLAN ON-SITE AT ALL TIMES.
11) ALL SOIL AT LEAST 6" BELOW EXISTING GRADE AT BOTTOMLESS SAND FILTER SHALL BE STRIPPED AND BACKFILLED WITH FILTER SAND ASTM-33.
12) ALL PUMPS SHALL BE EQUIPPED WITH A HIGH WATER LEVEL VISIBLE AND AUDIBLE ALARM POWERED BY THE SAME CIRCUIT AS THE PUMP POWER. THE ALARM SHALL BE LOCATED AS SHOWN ON SITE PLAN IN PANEL BOX.
13) ALL TANKS AND APPURTENANCES SHALL BE CONSTRUCTED SUCH THAT ALL ELEMENTS ACT AS A SINGLE WATERTIGHT UNIT & SHALL BE CONSTRUCTED ACCORDING TO ASTM STANDARD C-1227-97A OR ANY SUPERCEDING UPGRADING OF THIS STANDARD. ALL RISER ADAPTORS SHALL BE CAST IN PLACE DURING TANK MANUFACTURING. ALL INLETS AND OUTLETS SHALL BE CAST IN PLACE WITH CAST-A-SEAL OR EQUIVALENT W/ STAINLESS STEEL ADJUSTABLE CLAMP.
14) PUMPS SHALL BE AS MANUFACTURED BY ORENCO SYSTEMS, INC. OR APPROVED EQUAL. ADVANTEX FILTER PUMP - P300311 BOTTOMLESS SAND FILTER PUMP - P5005
15) A CONTROL PANEL FOR PUMPS SHALL BE INSTALLED AT A LOCATION SHOWN ON PLAN VIEW
16) BOTTOMLESS SAND FILTER MEDIA: SHALL BE HOLLISTON SAND & GRAVEL ASTM-33 SAND. LESS THAN 1% PASSING THE 10 SIEVE WITH AN EFFECTIVE SIZE OF .25 - .40 mm AND WITH A UNIFORMITY COEFFICIENT OF 2.0±. (HOLLISTON SAND & GRAVEL: 401-766-5010). CONTRACTOR TO SUPPLY ENGINEER W/ SAMPLES OF ALL MEDIA TO BE USED IN THE SAND FILTER. CONTRACTOR SHALL ALSO SUPPLY ENGINEER WITH SIEVE ANALYSIS SHOWING THAT THE FILTER MEDIA MEETS THE CRITERIA AS SHOWN ON PLAN.
17) THE CONTRACTOR MUST FOLLOW ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE ISDS APPLICATION LABELED-IMPORTANT.
18) INSTALLER MUST NOTIFY LICENSED DESIGNER 48 HOURS PRIOR TO START OF CONSTRUCTION WITH VALID INSTALLERS LICENSE NUMBER. DESIGNER MUST NOTIFY DEM 24 HOURS PRIOR TO START OF CONSTRUCTION IN ACCORDANCE WITH SD 27.00 (g).
19) IF INSTALLER ENCOUNTERS UNANTICIPATED CONDITIONS DURING CONSTRUCTION WHICH INDICATES THAT THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, INSTALLER SHALL STOP CONSTRUCTION AND NOTIFY THE LICENSED DESIGNER THAT IS RESPONSIBLE FOR WITNESSING AND INSPECTING THE INSTALLATION IN ACCORDANCE WITH SD 27.00 (c).
20) THE LICENSED DESIGNER SHALL WITNESS AND INSPECT ALL ASPECTS OF THE INSTALLATION, KEEP RECORDS, PREPARE THE CERTIFICATE OF COMPLETION AND PROVIDE O & M INFORMATION AND RECOMMENDATIONS TO THE OWNER, IN ACCORDANCE WITH SD 27.00 (h) THROUGH (m).
21) THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENT ACT OR OMISSION OF A USER OF AN ISDS, INCLUDING BUT NOT LIMITED TO, FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM, WHICH CAUSES DAMAGE TO THE ISDS.
22) FOUNDATION SHALL BE CAST IN PLACE CONCRETE NO FOUNDATION DRAINS PERMITTED. WITHIN 25' OF ANY ISDS COMPONANT.
23) ALL BACKFILL IN 10' RADIUS OF BOTTOMLESS SAND FILTER SHALL BE BANK RUN GRAVEL OR APPROVED BY ENGINEER.
24) THE LOCATION OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES AND STRUCTURES INDICATED ARE APPROXIMATE ONLY, AND THOSE INDICATED ARE NOT NECESSARILY ALL WHICH MAY EXIST ON THE SITE. THE CONTRACTOR SHALL DETERMINE ACTUAL LOCATIONS OF ALL UTILITIES ON AND ABUTTING THE SITE, WHETHER THEY ARE SHOWN HEREON OR NOT. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DAMAGE TO ANY UTILITY LINES.

INVERT SCHEDULE

LOCATION	ELEVATION	
OUT OF HOUSE AT GRADE	140.60	(GRAVITY)
INTO SEPTIC TANK	140.50	(GRAVITY)
PUMP DISCHARGE TO ADVANTEX FILTER	143.00	(PRESSURE)
INTO ADVANTEX FILTER LATERAL	145.00	(PRESSURE)
INVERT OF ADVANTEX OUTLET	143.00	(GRAVITY)
INVERT THROUGH SPLITTER VALVE	142.65	(GRAVITY)
INVERT INTO PUMP BASIN	142.55	(GRAVITY)
OUT OF PUMP BASIN	142.70	(PRESSURE)
INVERT OF DRAINFIELD LATERALS	143.75	(PRESSURE)

LIST OF COMPONENTS

1) 2000 GALLON 2-COMPARTMENT CONCRETE SEPTIC VALVE (REPS). TANK WITH PUMP VAULT AND RECIRCULATION SPLITTING
2) 24" DIAMETER PUMP BASIN.
3) AX20 AVANTEX TEXTILE FILTER.
4) BOTTOMLESS SAND FILTER. 31' LONG. x 15' WIDE x 2 1/2' DEEP PRESSURIZED
5) ORENCO SYSTEMS, INC. CONTROL PANEL. MODEL #VCOM-AXB1HT

PIPE SIZE SCHEDULE

BUILDING TO SEPTIC TANK	4" SCH 35 OR GREATER
SEPTIC TANK TO TEXTILE FILTER	1" CLASS 200
TEXTILE FILTER MANIFOLD	1" CLASS 200
TEXTILE FILTER LATERALS	3/4" CLASS 200
TEXTILE FILTER TO PUMP BASIN	2" SCH 35 OR GREATER
PUMP BASIN TO DRAINFIELD	2" CLASS 200
DRAINFIELD MANIFOLD	1 1/4" CLASS 200
DRAINFIELD LATERALS	3/4" CLASS 200

SOIL DATA

TEST HOLE #TH-1

32"-0	FILL
0"-8"	Ab
8"-14"	BC
62"+	C

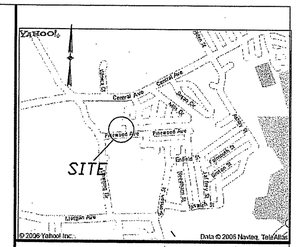
10" WATER TABLE
TEST HOLE EXCAVATED ON 4/02/03
(SEE REPORT #0316-0509)

FLOOD NOTE

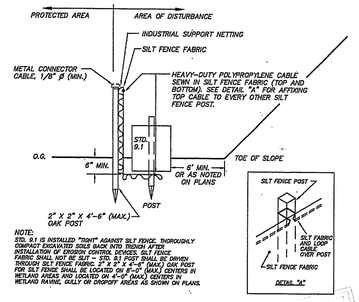
PARCEL LOCATED IN A FLOOD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 500 YEAR FLOOD PLAIN)
PANAL# 440018 0020 C

SURVEY NOTE

BASE LINE DATA OBTAINED FROM ON-SITE SURVEY MARGIN OF VERTICAL ERROR LESS THAN 1'. PLAN CONFORMS TO A CLASS IV SURVEY



LOCUS MAP
(NOT TO SCALE)



NOTE:
STD. 9.1 IS INSTALLED "TIGHT" AGAINST SILT FENCE. THOROUGHLY COMPACT EXCAVATED SOILS BACK INTO TRENCH AFTER INSTALLATION OF EROSION CONTROL DEVICES. SILT FENCE FABRIC SHALL NOT BE SLIT - STD. 9.1 POST SHALL BE DRIVEN THROUGH FABRIC. SPACING OF 2" X 2" X 4'-6" (MAX.) OAK POST FOR SILT FENCE FABRIC IS 6'-0" O.C. SPACING OF POSTS IN WETLAND AREAS AND LOCATED ON 4'-0" (MAX.) CENTERS IN WETLAND RAVINE, GULLY OR DROPOFF AREAS AS SHOWN ON PLANS.

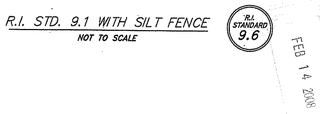
R.I. STD. 9.1 WITH SILT FENCE
NOT TO SCALE

RI STANDARD 9.6

FEB 14 2008

Drainfield Pump Basin

NOT TO SCALE



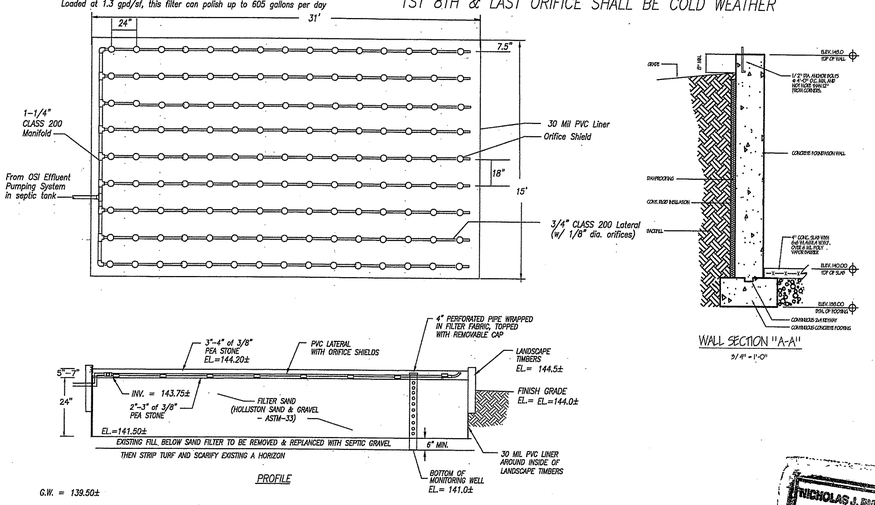
TOP VIEW - 24" DIAMETER PUMP BASIN FOR DOSING TO DRAINFIELD

15'x31' Bottomless Sand Filter

NOT TO SCALE

This drawing is for a 15'x31' bottomless sand filter
The dosing pump shall be an P5005
Loaded at 1.3 gpd/sf, this filter can polish up to 605 gallons per day

NOTE
1ST 8TH & LAST ORIFICE SHALL BE COLD WEATHER

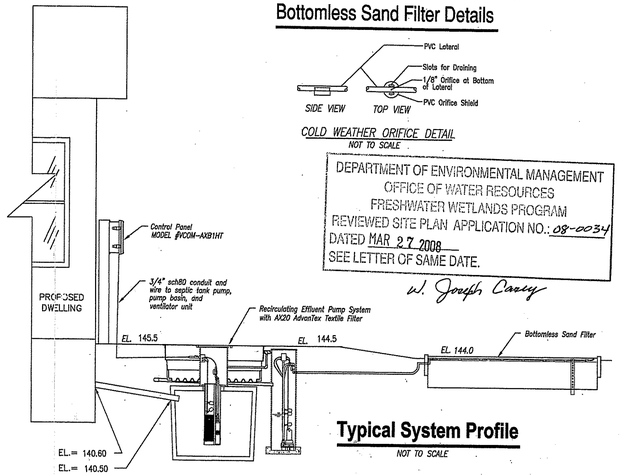


WALL SECTION "A-A"
3/4" = 1'-0"

Bottomless Sand Filter Details

COLD WEATHER ORIFICE DETAIL
NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
REVIEWED SITE PLAN APPLICATION NO.: 08-0034
DATED MAR 27 2008
SEE LETTER OF SAME DATE.
W. Joseph Casey



Typical System Profile

NOT TO SCALE

NICHOLAS J. PANIPINTO
REG. NO. 6512
REGISTERED PROFESSIONAL ENGINEER
STATE OF RHODE ISLAND

ADVANCED CIVIL DESIGN, INC.
7 COUNTRYSIDE LANE, SCITUATE, R.I. 02917 (401) 934-3768

INDIVIDUAL SEWERAGE DISPOSAL SYSTEM DESIGN
3 BEDROOM ISDS
for ANTONIO PALIOTTA
on PINEWOOD AVE
In JOHNSTON, RI
4 BEDROOM DESIGN A.P. 9 LOTS 16 &18

PER RIDEM	12/1/07	1
REVISIONS	DATE	NO.
DRAWN BY	NJP	
CKD. BY	NJP	
APPRD. BY	NJP	
DATE	02/07	
SCALE	1"=30'	
SHEET	1 OF 1	
DWG.NO.		